REMARKS

The amendment to the specification updates the citations for related applications mentioned in the specification, as well as a change of name for the assignee.

Each of the independent claims 1, 19, 29 and 48 remaining in the application after the entry of this Preliminary Amendment has been amended to require "a plurality of magnets oriented successively in polar opposition for individual movement relative to each other" and to a support structure. All of the independent claims also require that at least some of the magnets have mutually different properties.

Claim 1 was rejected in the parent application under 35 U.S.C. 102(b) as anticipated by both Patent No. 6,104,108 to Hazelton et al., and Patent No. 5,818,132 to Konotchick. Hazelton et al., however, is patentably distinguishable from the present invention at least because its various magnets are connected together, rather than being capable of individual movement relative to each other as required by the present claims, and because its magnets are not oriented in polar opposition. As described at column 4, lines 60-66, "Transverse permanent magnets 202a - 202d having alternately reversed magnetic polarities...are attached to a first side rail 204a, parallel to the xz-plane." Since the magnets are all attached to the side rail 204a, they cannot move relative to each other. Furthermore, although magnets 202a - 202b are shown as being oriented in polar opposition to each other, each successive pair of these transverse magnets is separated by a pair of wedge magnets 206a - 206h. The wedge magnets of each pair have a generally parallel polarity that is rotated approximately 90° from the transverse magnets on each side, and generally 180° from the next pair of wedge

magnets on the opposite faces of the adjacent transverse magnets. Thus, as the magnet array illustrated in FIG. 2a is traversed from left to right, the magnetic polarity generally rotates 90° clockwise between successive transverse magnets and pairs of wedge magnets. This is very different from having the magnets "oriented in polar opposition" as required by claim 1. To change the magnet array disclosed in Hazelton et al. to one in which the magnets are "oriented successively in polar opposition" would require the elimination of the wedge magnets, which would change the entire nature of the structure.

Konotchick discloses a structure in which "Moving magnet 2 is composed of three small disc magnets 2A, 2B and 2C held together by magnet force." (column 3, lines 26-28). Magnets 2A, 2B and 2C cannot move relative to each other, and thus do not anticipate claim 1. The purpose of the triple-magnet structure 2A/2B/2C of FIG. 2 in Konotchick was to implement the single moving magnet embodiment in FIG. 1 with a lower cost magnet structure (column 3, lines 6-22); magnets 2A, 2B and 2C effectively function as a simple unified magnet. By contrast, the improved electric generating capability of the present invention results from the provision of multiple moving magnets with different magnetic properties, particularly magnetic strength (see specification page 6, lines 14-25). Nor can magnets 3, 4 of Konotchick be included in the "plurality of magnets" required by claim 1, since as acknowledged in the October 28, 2003 Office action in the parent application, these magnets are fixed. They thus do not move relative to a support structure. Furthermore, claim 1 requires "a plurality of magnets oriented successively in polar opposition for individual movement relative to each other." Konotchick's fixed end magnets 3 and 4 also do not satisfy this requirement.

Claim 19 was rejected under 35 U.S.C. 103(a) over Konotchick in view of Soloman et al., which was cited as teaching ferrofluid as a combination bearing and seal. However, claim 19 is patentably distinct from Konotchick for the same reasons as claim 1, with or without ferrofluid bearings. The addition of ferrofluid bearings to the Konotchick structure would result in something quite different from the presently claimed structure.

Claim 29 was rejected under 35 U.S.C. 103(a) over Konotchick as modified by Solomon et al. and Raj, with Raj cited as teaching a ferrofluid having a viscosity of less than 5 cp at 27° centigrade. However, claim 29 is also patentably distinct from Konotchick for the same reasons as claims 1 and 19. Even if Konotchick were modified as suggested, the resulting structure would still not correspond to claim 29.

Claim 48 was rejected under 35 U.S.C. 103(a) over Hazelton et al., in view of Solomon et al., and also Konotchick in view of Solomon et al. Patentable distinctions of claim 48 from both Hazelton et al. and Konotchick are similar to those for claim 1. These distinctions are independent of the ferrofluid bearings of Solomon et al.

In addition to the amendments to independent claims 1, 19, 29 and 48, claim 33 has been amended to depend from amended claim 1. While the requirement in claim 33 for an even number of moving magnets is believed to have independent patentability, the present amendment to claim 1 requiring that the moving magnets be oriented "successively" in polar opposition, and that they move relative "to each other", are clarifications of the original claim language that are applicable to claim 33 also. Since claim 33 in its original form inherently included the limitations made explicit in the present amendment to claim 1, making it depend

from claim 1 does not add any further limitations to claim 33.

Claims 34-42, 44-47 and 59-64 have been canceled to avoid duplication with other claims and an unnecessary claim proliferation, while claim 43 has been amended to depend from claim 1 rather than canceled claim 42.

In view of the present Preliminary Amendment, all of the claims remaining in the application are believed to be in proper form for allowance, and a Notice of Allowance is respectfully requested.

Respectfully submitted,

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Richard S. Koppel
Registration No. 26,475
Attorney for Applicant

KOPPEL, JACOBS, PATRICK AND HEYBL
555 St. Charles Drive, Suite 107
Thousand Oaks, California 91360
(805)373-0060
S\R1\Rockwell\01SC135CO1 Continuation Appln